PROC. ENTOMOL. SOC. WASH.
98(1), 1996, pp. 158–161

XENOTHYRINI, A NEW TRIBE OF LABENINAE, AND A KEY TO THE TRIBES AND GENERA OF LABENINAE (HYMENOPTERA: ICHNEUMONIDAE)

David B. Wahl

American Entomological Institute, 3005 SW 56th Ave., Gainesville, FL 32608, U.S.A.

Abstract.—A new tribe, **Xenothyrini,** is proposed for the labenine genus *Xenothyris.* A worldwide key to labenine genera is provided.

Key Words: Hymenoptera, Ichneumonidae, Labeninae, Xenothyrini, *Xenothyris*

In a recent cladistic analysis of the genera of Labeninae (Wahl 1993b), I pointed out that the monotypic genus *Xenothyris,* based on its position relative to the other tribes in the subfamily, should be placed in its own tribe. Although I took no action on the matter at the time, I am now erecting a new tribe, Xenothyrini, in order to maintain a natural classification. I am also providing a new key to the genera of Labeninae, as there has been extensive redefinition of the tribes and genera (Gauld 1983, 1984, Gauld and Holloway 1986, Porter 1989, Wahl 1993b) since the publication of the last comprehensive key (Townes 1969).

The morphological terminology is that of Wahl (1993a), except for *hypostomal-mandibular index:* the length of the hypostomal carina from its juncture with the occipital carina to the mandibular base, divided by the basal width of the mandible. Wing veins and cells used in the text are illustrated in Fig. 1.

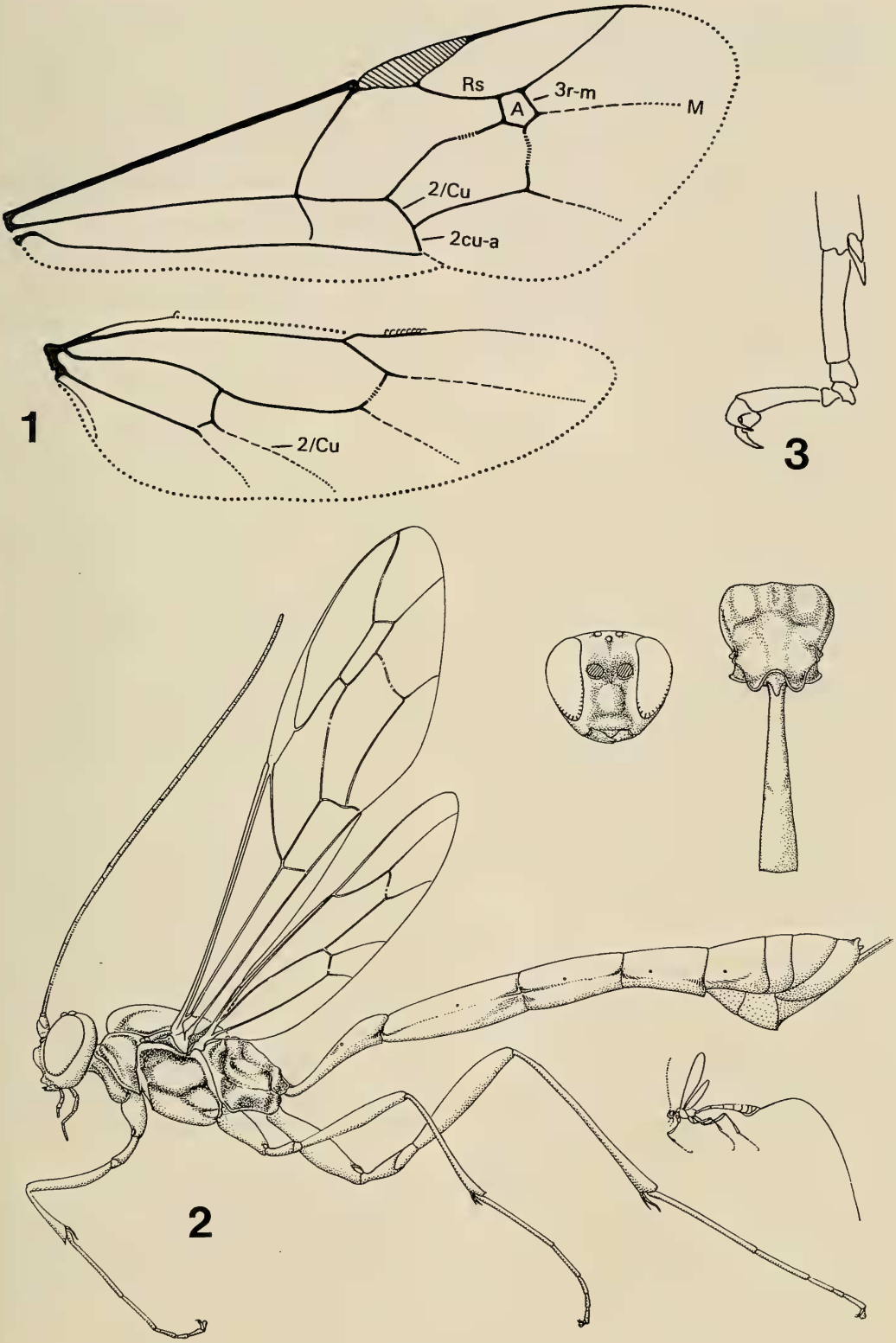
Xenothyrini, New Tribe

Diagnosis (autapomorphies (from Wahl 1993b) marked with an asterisk): *Supraclypeal area with prominent median convexity; labrum mostly concealed by clypeus; mandible not twisted or strongly narrowed apically; occipital carina complete dorsally; mesoscutum without transverse rugae; *posterior face of hind coxa with median slanted groove, groove not basal and vertical, or extending ventrally on a process; apex of fore tibia with dorsal tooth; *hind tarsal claw with basal tooth; metapleural carina not expanded into flange or sharp tooth; propodeal spiracle long and elliptical; insertion of metasoma on propodeum slightly above level of hind coxa; *cell 1 + 2Rs ("areolet") of fore wing about 6× as wide as high; vein 2m-cu of fore wing with two bullae; fore wing with vein 2/Cu about 1.2× as long as vein 2cu-a; hind wing with one basal hamulus; *spiracle of metasomal segment 1 near apex; *tergosternal suture of metasomal segment 1 obsolescent; *ovipositor much longer than body, approximately 11× as long as hind femur (ratio uncertain due to distortion of ovipositor); ventral margin of ovipositor apex with simple, widely-spaced teeth.

Type-genus: *Xenothyris* Townes, 1969: 197.

Species and distribution: There is a single species, *X. ferruginea* Townes, 1969 (Fig. 2), recorded from Argentina and Brazil.

Discussion: Higher-level relationships amongst the Labeninae are: Poecilocryptini + (*Xenothyris* + Groteini + Labenini)



Figs. 1–3. 1, Fore and hind wings of an ichneumonid (from Townes 1969); A - cell 1 + 2Rs. 2, Habitus of *Xenothyris ferruginea* (from Townes 1969). 3, Middle tarsus of *Labena grallator* (Say).

(Wahl 1993b). The three tribes recognized to date are each monophyletic (Wahl 1993b).

Key to the Genera of Labeninae

1. Cell 1 + 2Rs of fore wing about 6× as wide as long (fig. 2); hind tarsal claw with basal tooth; supraclypeal area with prominent median convexity (fig. 2); distribution: Argentina and Brazil. . . . . .(XENOTHYRINI) *Xenothyris*
– Cell 1 + 2Rs 1–2× as wide as high; hind tarsal claw without basal tooth or with only basal lobe (*Urancyla*); supraclypeal area without prominent median convexity. 2
2. Labrum exposed and large; hind wing with 4–8 basal hamuli in close cluster . . (GROTEINI) 3
– Labrum largely or entirely concealed by clypeus; hind wing with one basal hamulus 4
3. Metasomal segment 1 apically decurved, its spiracle near apical 0.4; hypostomal-mandibular index = 1.5–2.5; ovipositor projecting beyond metasomal apex by 1–3× length of hind femur, not dorsoventrally flattened; vein 2m-cu of fore wing with two bullae; distribution: New World. . . . . *Grotea* (including *Echthropsis* and *Macrogrotea*)
– Metasomal segment 1 straight or upcurved apically, its spiracle just before midpoint; hypostomal-mandibular index ≤ 0.5; ovipositor not projecting beyond metasomal apex, dorsoventrally flattened; vein 2m-cu with one bulla; distribution: Australian Region and Brazil. . . .*Labium*
4. Hind coxa of female with deep vertical groove at base of posterior face, sometimes extending ventrally on process; fore wing with vein 2/Cu > vein 2cu-a (except in some New World species with transverse mesoscutal rugae). . . . . .(LABENINI) 5
– Hind coxa of female without groove or process on hind coxa; fore wing with vein 2/Cu ≤ vein 2cu-a . . . . . .(POECILOCRYPTINI) 6
5. Mesoscutum with transverse rugae; metapleural carina strongly expanded into flange or sharp tooth; apical flagellomere of ♀ terminally convex; tarsomere 3 of ♀ ventrally without apical process; distribution: Australian and Neotropical Regions. . . . . *Certonotus* (including *Apechoneura* and *Asperellus*)
– Mesoscutum without transverse rugae; metapleural carina usually simple, rarely expanded into flange; apical flagellomere of ♀ terminating in flat glabrous sensilla; tarsomere 3 of ♀ ventrally with apical process (Fig. 3); distribution: Australian Region and New World. . . . . *Labena*
6. Median longitudinal carina of propodeum complete; vein 2/Cu of hind wing absent; distribution: Australian Region. . . . . *Poecilocryptus*
– Median longitudinal carina absent, at least between basal and apical transverse carinae; vein 2/Cu present or absent. 7
7. Basal transverse carina of propodeum present; vein 3r-m of fore wing present; ovipositor about 1.7× as long as hind tibia; distribution: Australian Region. . . . . *Urancyla*
– Basal transverse carina absent; vein Rs and M of fore wing fused, cell 1 + 2Rs absent; ovipositor ≥ 6× as long as hind tibia; distribution: Australian Region. . . . . *Alaothyris*

Summary of Recent Changes in Labenine Classification

Townes (1969) recognized four tribes: Brachycyrtini, Clasini, Labiini (correctly known as Groteini), Labenini. In his cladistic analysis of labenine genera, Gauld (1983) transferred the Clasini to the Cryptinae and removed *Poecilocryptus* from the Brachycyrtini to its own tribe, Poecilocryptini. Gauld (1984) next described two new genera, *Alaothyris* and *Urancyla,* in the Poecilocryptini, and one new genus, *Monganella,* in the Brachycyrtini. Gauld and Holloway (1986) synonymized *Asperellus* with *Certonotus* in the Labenini. In the Groteini, *Echthropsis* was elevated by Porter (1989) from a synonym of *Macrogrotea.* Wahl (1993b) re-examined the cladistics of the subfamily and: 1) removed the Brachycyrtini from the subfamily, 2) in Groteini synonymized *Echthropsis* and *Macrogrotea* with *Grotea,* and 3) in Labenini synonymized *Apechoneura* with *Certonotus.*

Acknowledgments

I thank Ian Gauld and Charles Porter for their comments and suggestions.

Literature Cited

Gauld, I. D. 1983. The classification, evolution and distribution of the Labeninae, an ancient southern group of Ichneumonidae (Hymenoptera). Systematic Entomology 8: 167–178.

———. 1984. An introduction to the Ichneumonidae of Australia. British Museum (Natural History), London. 413 pp.

Gauld, I. D. and G. A. Holloway. 1986. Australian ichneumonids of the tribes Labenini and Poecilocryptini. Bulletin of the British Museum of Natural History (Entomology) 53(2): 107–149.

Porter, C. C. 1989. Una revision taxonomica de los Groteini chilenos (Hymenoptera: Ichneumonidae). Acta Entomologica Chilena 15: 143–162.

Townes, H. 1969. The genera of Ichneumonidae, part 1. Memoirs of the American Entomological Institute 11: 1–300.

Wahl, D. B. 1993a. Cladistics of the genera of Mesochorinae (Hymenoptera: Ichneumonidae). Systematic Entomology 18: 371–387.

———. 1993b. Cladistics of the ichneumonid subfamily Labeninae (Hymenoptera: Ichneumonidae). Entomologia generalis 18: 91–105.